

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1-13. (Canceled).

14. (Currently Amended) A fuel injector, comprising:

a valve needle;

a fixed valve seat surface;

a valve-closure member that is actuated by the valve needle, wherein the valve-closure member cooperates with the fixed valve seat surface to form a sealing seat; and

a connecting piece;

a valve housing that at least partially encloses the connecting piece, the valve housing being configured to be joined to the connecting piece by a crimped connection,

wherein:

the connecting piece includes at least one notch,

the valve housing, under an axial stress, is configured to be crimped into the at least one notch, and

~~the valve housing includes crimped connection is configured to be formed by a material bulge having an average axial distance d with respect to the notch at a circumference of the connecting piece, the material bulge configured to be shifted inwards in a radial direction and all the way into the notch to generate an axial stress between the valve housing and the connecting piece.~~

15. (Previously Presented) The fuel injector according to claim 14, wherein:

the fuel injector corresponds to an injector for a fuel injection system of an internal combustion engine.

16. (Previously Presented) The fuel injector according to claim 14, wherein:

the at least one notch is configured as a circumferential groove on an external periphery of the connecting piece.

17. (Currently Amended) A fuel injector, comprising:

a valve needle;
a fixed valve seat surface;
a valve-closure member that is actuated by the valve needle;
a valve-closure member cooperating with the fixed valve seat surface to form a sealing seat;
a connecting piece;
a valve housing that at least partially encloses the connecting piece, the valve housing being configured to be joined to the connecting piece by a crimped connection; and
a spring element provided between the valve housing and the connecting piece and for acting upon the crimped connection through an axial stressing force;
wherein the ~~valve housing includes crimped connection is configured to be formed by~~ a material bulge ~~having an average axial distance d with respect to a notch at a circumference of the connecting piece, the material bulge configured to be shifted inwards in a radial~~ direction and all the way into the notch to generate an axial stress between the valve housing and the connecting piece.

18. (Withdrawn) The fuel injector according to claim 17, wherein:

the fuel injector corresponds to an injector for a fuel injection system of an internal combustion engine.

19. (Withdrawn) The fuel injector according to claim 17, further comprising:

a crimped valve housing segment; and
a support ring provided between the spring element and the crimped valve housing segment.

20. (Withdrawn) The fuel injector according to claim 17, wherein:

the spring element includes a spring ring.

21. (Withdrawn) The fuel injector according to claim 14, wherein:

the crimped connection includes a plurality of crimping segments arranged with respect to a valve axis so as to be offset from each other circumferentially, and

the valve housing is joined with respect to the crimping segments to the connecting piece in each case by a partial crimped connection, leaving out uncrimped segments.

22. (Withdrawn) The fuel injector according to claim 17, wherein:

the crimping connection includes a plurality of crimping segments arranged with respect to a valve axis so as to be offset from each other circumferentially, and

the valve housing is joined with respect to the crimping segments to the connecting piece in each case by a partial crimped connection, leaving out uncrimped segments.

23. (Withdrawn) The fuel injector according to claim 14, further comprising:

a lift-adjustment disk arranged between the valve housing and the connecting piece.

24. (Withdrawn) The fuel injector according to claim 17, further comprising:

a lift-adjustment disk arranged between the valve housing and the connecting piece.

25. (Withdrawn) The fuel injector according to claim 14, further comprising:

a sealing ring arranged between the valve housing and the connecting piece.

26. (Withdrawn) The fuel injector according to claim 17, further comprising:

a sealing ring arranged between the valve housing and the connecting piece.

27. (Withdrawn) A method for manufacturing a fuel injector that includes a valve-closure member actuated by a valve needle and cooperating with a fixed valve seat surface to form a sealing seat, that includes a connecting piece and a valve housing that at least partially encloses the connecting piece, and in which the connecting piece includes at least one notch into which the valve housing is crimped, the method comprising the steps of:

inserting the connecting piece into the valve housing up to a predetermined limit stop; and

crimping a material bulge into the at least one notch, wherein:

the material bulge is arranged at an average distance with respect to the at least one notch in order to generate an axial tension between the valve housing and the connecting piece.

28. (Withdrawn) The method according to claim 27, wherein:

the fuel injector corresponds to an injector for a fuel injection system of an internal combustion engine.

29. (Withdrawn) A method for manufacturing a fuel injector that includes a valve-closure member actuated by a valve needle and cooperating with a fixed valve seat surface to form a sealing seat, and that includes a connecting piece and a valve housing that at least partially encloses the connecting piece, the method comprising the steps of:

inserting the connecting piece into the valve housing up to a predetermined limit stop;
introducing a spring element into an interstitial space formed between the connecting piece and the valve housing; and

applying a crimping force to the spring element by crimping over the valve housing in a direction of the connecting piece in order to generate an axial tension between the valve housing and the connecting piece.

30. (Withdrawn) The method according to claim 29, wherein:

the fuel injector corresponds to an injector for a fuel injection system of an internal combustion engine.

31. (Withdrawn) The method according to claim 29 wherein, once the spring element is introduced, the method further comprises the step of:

inserting a support ring into the interstitial space formed, after a joining, between the connecting piece and the valve housing.

32. (Withdrawn) The method according to claim 29, further comprising the step of:

prestressing the spring element before a crimping by an action of a tubular prestressing tool guided about the connecting piece.

33. (Withdrawn) The method according to claim 29, further comprising the step of:

setting an axial insertion depth of the connecting piece into the valve housing by at least one lift-adjustment disk.

34. (Previously Presented) The fuel injector according to claim 14, wherein the fuel injector corresponds to an injector for a fuel injection system of an internal combustion engine, and

U.S. Pat. App. Ser. No. 09/762,665
Attorney Docket No. 10191/1716
Reply to Final Office Action of June 11, 2009

wherein the at least one notch is configured as a circumferential groove on an external periphery of the connecting piece.

35. (Previously Presented) The fuel injector according to claim 17, wherein the fuel injector corresponds to an injector for a fuel injection system of an internal combustion engine, and wherein the at least one notch is configured as a circumferential groove on an external periphery of the connecting piece.